IN THE CLAIMS

1. (Currently Amended) Mold for the continuous casting of molten metals, especially steel, with cooling channels (1), such as grooves, slits, or bores, in the side (2) of the mold that faces away from the melt contact surface, in which mold, in conformity with the design of the cooling channels (1), the cooling effect of the cooling channels (1) is maximized in the region of the maximum heat flux density or the maximum temperature of the contact surface (18), ~~characterized in that~~ wherein the geometric designs of the heat-transfer surface areas of a cooling channel (1) or of a group of cooling channels are adapted in shape, cross-sectional area, circumference, boundary surface properties, and orientation relative to the contact surface to the local development of the heat flux density and/or temperature of the contact surface (18) in the casting operation and especially in the meniscus region (11) by local variation relative to the contact surface, such that to influence the local cooling intensity of a cooling channel (1), its effective heat-exchange surfaces on the base of the channel or on the lateral surfaces are increased or decreased, and to influence the local cooling intensity of a cooling channel (1), its isoperimetric cross-sectional area is increased by providing additional grooves in the base or lateral surfaces or decreased by inserting displacement bodies.

2. (Currently Amended) Mold in accordance with Claim 1, ~~characterized in that~~ wherein grooves or scores additionally introduced to increase the heat-exchange surfaces in the cooling channels are cross-sectionally shaped as rectangles, triangles, trapezoids, circular or elliptical segments, or any desired free forms and are adapted to the course of the cooling channels in their number, depth, and width, and in their relative positioning parallel to one another or in some other desired arrangement.

3. (Currently Amended) Mold in accordance with ~~Claim 1 or Claim 2, characterized in that~~ Claim 1, wherein the heat-transfer surfaces of the cooling channels (1) are altered with respect to their boundary surface properties to influence the local cooling intensity, e.g., by producing well-defined surface roughness for increased heat transfer or by applying additional layers for reduced heat transfer.

4. (Currently Amended) Mold in accordance with ~~one or more of Claims 1 to 3, characterized in that,~~ Claim 1, wherein, to influence the local cooling intensity of a cooling channel (1) and to alter the coolant flow, which is initially aligned straight relative to the contact surface, additional grooves are

produced in the base and/or lateral surfaces of the cooling channel, or additional displacement bodies are inserted, and/or an altered wall shape of the cooling channels (1) is provided.

5. (Currently Amended) Mold in accordance with ~~one or more of Claims 1 to 4, characterized in that,~~ Claim 1, wherein, to influence the local cooling intensity, the cooling channels (1) are arranged locally or overall with respect to their distance from the contact surface and/or their density of arrangement, i.e., the number of cooling channels per unit length of the mold width.